

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) High-A high pressure sodium lamp having a nominal power Pla, which is suitable to be operated at a very high frequency (VHF), having a discharge tube with a ceramic wall and an internal vessel diameter D_{int} , enclosing a discharge space in which a pair of electrodes at a mutual electrode distance ed and a filling of Na-amalgam with a sodium mol fraction (smf), characterized in that the discharge tube has a ratio ed/D_{int} between about 5.5 and 4.0 a ratio of the internal discharge vessel diameter D_{int} to the nominal lamp power Pla being substantially in a range of $0.045 \leq D_{int}/Pla \leq 0.08$.

2. (Currently Amended) Lamp according to claim 1, characterized in that wherein a thickness of the wall thickness (wt) is $0.4 \leq wt \leq 0.6$ mm.

3. (Currently Amended) Lamp according to claim 1, characterized in that wherein the lamp has a

wall load of at most 30 W/cm².

4. (Currently Amended) Lamp according to claim 1,
characterized in that: A high pressure sodium lamp having a nominal
power Pla, and comprising:

a discharge tube with a ceramic wall and an internal vessel
diameter D_{int}, enclosing a discharge space;
a pair of electrodes at a mutual electrode distance ed; and
a filling of Na-amalgam with a sodium mol fraction (smf)
substantially in a range of 0.6 < smf < 0.75, wherein the discharge
tube has a ratio ed/ D_{int} between about 5.5 and 4.0;

[[[-]]] a ratio of the mutual electrode distance ed to the
nominal power Pla being substantially in a range of 0.2 ≤ ed/Pla ≤
0.35; and

[[[-]]] an amalgam composition with 0.6 < smf < 0.75;

[[[-]]] the a ratio of the internal discharge vessel
diameter D_{int} to the nominal lamp power Pla is being substantially in
a range of 0.045 ≤ D_{int}/Pla ≤ 0.08, 0.08.

[[[-]]] the wall thickness (wt) is 0.4 ≤ wt ≤ 0.6 mm.

5. (Currently Amended) Lamp-The high pressure sodium lamp
according to claim 1, characterized in that: wherein the filling
also further comprises Xe having a pressure at room temperature in

the range of $400 \text{ mbar} \leq p_{\text{Xe}} \leq 1000 \text{ mbar}$.

6. (Currently Amended) ~~Lamp~~ The high pressure sodium lamp according to claim 1, ~~characterized in that~~ wherein the electrodes are provided with emitter and ~~that~~ wherein each of the electrodes has an electrode diameter, which specified relatively to the average lamp current (I_{la}) at nominal lamp power fulfills the relation: $0.2 < (D_{\text{electrode}})^2 / I_{\text{la}} < 0.45$, preferably $0.25 < (D_{\text{electrode}})^2 / I_{\text{la}} < 0.35$.

7. (Currently Amended) ~~Lamp according to~~ The lamp of claim 1, ~~characterized in that~~ wherein the lamp emits light in nominal operating condition with a color temperature T_c of at most 2500K.

8. (Original) A lighting system comprising a full electronic VHF driver for operating a lamp according to claim 1.

9. (Currently Amended) ~~A~~ The system according to claim 8, wherein the VHF ballast is provided with resonant ignition means by which resonant ignition is applied on igniting the lamp.

10. (New) The high pressure sodium of claim 1, wherein a ratio of the mutual electrode distance ed to the nominal lamp power Pla is substantially in a range of $0.2 \leq ed/Pla \leq 0.35$.

11. (New) The high pressure sodium of claim 1, wherein the Na-amalgam has a sodium mol fraction (smf) substantially in a range of $0.6 < \text{smf} < 0.75$.

12. (New) The high pressure sodium of claim 1, wherein the discharge tube has a ratio ed/D_{int} substantially between about 5.5 and 4.0.

13. (New) The high pressure sodium lamp 4, wherein a thickness (wt) of the ceramic wall is substantially between $0.4 \leq \text{wt} \leq 0.6$ mm.

14. (New) A high pressure sodium lamp having a nominal power Pla , and comprising:

a discharge tube with a ceramic wall and an internal vessel diameter D_{int} , enclosing a discharge space;

a pair of electrodes at a mutual electrode distance ed ; and
a filling of Na-amalgam;

a ratio of the mutual electrode distance ed to the nominal lamp power Pla being substantially in a range of $0.2 \leq \text{ed}/\text{Pla} \leq 0.35$.

15. (New) The high pressure sodium of claim 14, wherein a

ratio of the internal discharge vessel diameter D_{int} to the nominal lamp power Pla is substantially in a range of $0.045 \leq D_{int}/Pla \leq 0.08$

16. (New) The high pressure sodium of claim 14, wherein the Na-amalgam has a sodium mol fraction (smf) substantially in a range of $0.6 < smf < 0.75$.

17. (New) The high pressure sodium of claim 14, wherein the discharge tube has a ratio ed/ D_{int} substantially between about 5.5 and 4.0.

18. (New) The high pressure sodium lamp 14, wherein a thickness (wt) of the ceramic wall is substantially between $0.4 \leq wt \leq 0.6$ mm.